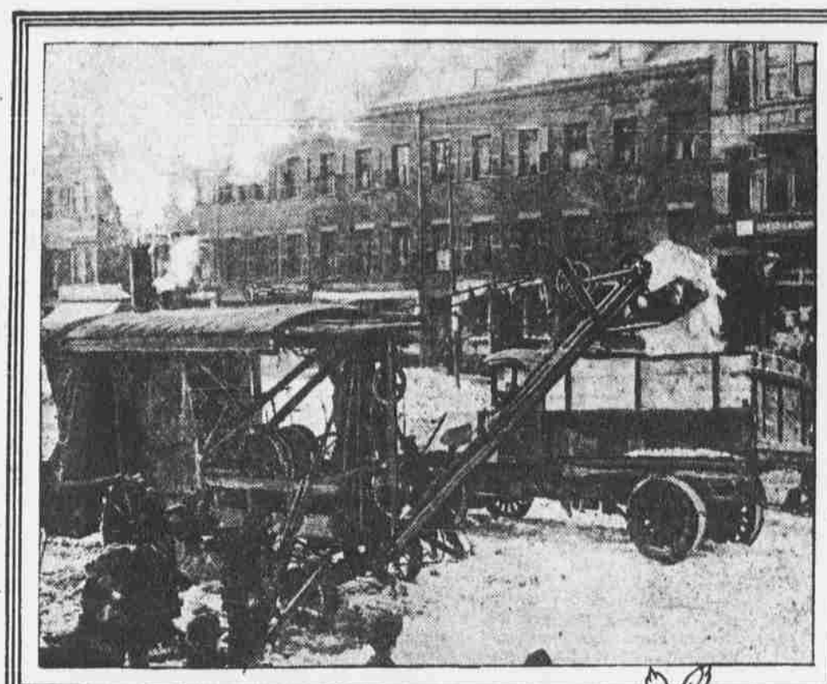
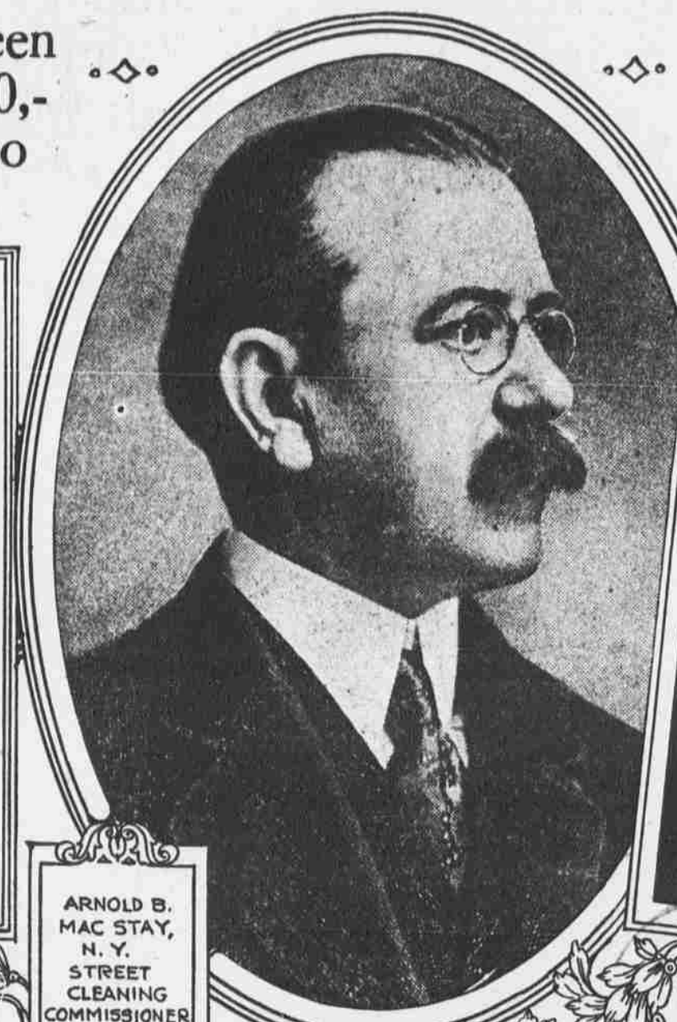
MacStay Points to $6,000,000 Snow Bill As an Object Lesson for Preparedness

Declares Department Never Has Been Equipped Adequately and Asks $20,000,000 Appropriation—Winter's Loss to Merchants Exceeds $30,000,000



STEAM DREDGER CLEARING SNOW FROM BOSTON STREETS



ARNOLD B. MAC STAY, N. Y. STREET CLEANING COMMISSIONER

JAMES W. COSTELLO WHO CLEARED NEWARK'S STREETS

Cost for Snow Removal for Six Years.

Season.	Total inches Snowfall	Cost removal
1913-14	38.2	$2,473,390
1914-15	22.4	523,891
1915-16	48.1	2,521,300
1916-17	46.2	1,127,018
1917-18	22.0	2,676,603
1918-19	.1	.....
1919-20	(?)	*$6,000,000

*Estimated.

APPREHENSIVELY, if not a little timidly, a clerk entered the office of Arnold B. MacStay, Commissioner of Street Cleaning for New York, just before the noon hour one Saturday not so long ago. He hesitated, then placed before the Commissioner an official report of the United States Weather Bureau. The Commissioner read the first line with a smile, then his face clouded and he glanced at the barometer hanging on the wall beside him. The report read:

"Continued rain—followed to-night by snow and falling temperature."

Persons with the shortest of memories will recall that on this occasion at least the weather man made a good guess. Readers will remember the sudden change from a desultory sort of spring rain to a Saturday night blizzard that made them wonder what else the elements had in store to serve before the end of an unusually freakish winter. Commissioner MacStay remarked abstractedly: "This is the thirteenth of the month, isn't it?"

Mr. MacStay's announcement that his official report soon to be submitted to Mayor Hylan would "startle the town" had caused considerable curiosity concerning the reason why New York city's bill for snow removal this year will probably exceed $6,000,000, and also why merchants have suffered an aggregate loss variously estimated at anywhere from $30,000,000 to $50,000,000 because of the effect on traffic and the continued impassability of the city's commercial thoroughfares.

Not a Novice at Work.

Commissioner MacStay has been in the department for six years and is not a novice at his own business. He was secretary to John T. Fetherstone, his predecessor in office, and afterward Deputy Commissioner in charge of The Bronx. He assumed the Commissionership with advent of the Hylan administration, but it was not until this winter that the efficiency of his department was put to the test of overcoming unusual conditions.

One result of the experiences of the last six weeks is that Commissioner MacStay soon will appear before the Board of Estimate with an urgent request for an appropriation of about $20,000,000 for the purchase of new equipment for his department.

"The fault," he said, "for present conditions and the experiences we have just come through does not lie with this administration or the last, but goes back fifteen years or more. Since its inception the department has never had enough equipment to function properly in normal times.

"The entire secret of snow removal and of keeping streets open in winter lies in getting to work with the storm. We must, so to speak, get at the snow before it gets cold, and this is impossible when we are dependent upon outside facilities for our equipment. With the cold weather comes an increasing number of ashes to be carted, and with the snow comes a general slowing down of trucking, so that on account of our inadequate equipment we are compelled to resort to hired motor trucks of a type entirely unsuited to the work and which are expensive and otherwise unsatisfactory.

Must Start Removal at Once.

"This department has never had enough equipment to meet normal conditions, so that with the advent of snow and cold weather we are handicapped from the beginning, because it is usually necessary to wait from twenty-four to seventy-two hours before we can bring into play motor trucks which we have to engage from the outside to cart away the snow and which experience has shown cannot be depended upon to function before a continued storm is at least a day or a day and a half old.

"If we can get to work with the storm we can keep abreast of it and New York will not suffer as it has this last winter. It is going to cost money and New Yorkers will have to pay the bill, but the fault is not ours. To properly affix it is a remarkable commentary on the shortsightedness of some of the city fathers. For example, with the exception of an appropriation in 1915 of $250,000 to motorize the so called model district, the city's appropriation for new street cleaning equipment in the past fifteen or eighteen years has been practically negligible.

"We still are using the old fashioned horse drawn ashcart that was in use in Col. Waring's time and which has a capacity of one and a half cubic yards. Think of it! Little or no new machinery in all that time. Then compare the amount of building—new apartment houses, model tenements, duplex houses, to say nothing of other construction work that has been erected, particularly in Brooklyn and The Bronx, where the hauls are long and no adequate provision made to meet the changing conditions.

Needs Modern Equipment.

"The result of this shortsighted policy has been to make the department almost wholly dependent upon outside facilities in a crisis such as we have just experienced. That brings up matters for very practical consideration. In the first place owners of motor trucks cannot be expected to withdraw them from jobs on which they are already engaged with the first flurry of snow. Then, if they do, they are very apt to leave with the first offer for more remunerative compensation than the city can afford to pay. And besides all this, the type of truck available is unsuited for the purpose. Ashes constitute a great volume of the trucking that has to be done in the winter time, and only a specially constructed truck, with its motive parts protected against dust, gives satisfactory results.

"We may say, then, that the question of new equipment is a twofold one. The city must provide new and modern machinery for clearing the streets during a snowstorm, and, in addition, the department must have adequate means of handling the daily accumulation of garbage and waste under such adverse conditions as we have recently encountered."

"Will you recommend the complete motorization of the department?" Commissioner MacStay was asked.

"I will to a very great extent," he replied. "For this reason. During the last harbor strike, when there were no scows available, the department was forced to the necessity of hiring motor trucks to transport garbage from Manhattan and The Bronx all the way to Queens for final disposition. We cannot tell when we will have to face a similar emergency."

Here is a list of some of the equipment Commissioner MacStay will shortly ask the Board of Estimate to purchase:

Three hundred and seventy-six motor trucks of large capacity for the hauling of garbage in winter and equipped with convertible tanks that may be used for flushing the streets in summer.

Two hundred and fifty baby tanks from the War Department, each equipped with a two or four wheel trailer, which may be used to cart away snow as the tank ploughs a path through a congested street.

An undetermined number of a snow collecting and loading machine that has been designed and successfully demonstrated by Dr. Samuel Friedman, a physician of 67 East Ninety-third street.

A sufficient number of garages and storage structures to house the new equipment when not in use.

In addition to the above the Commissioner will ask the city to install in the city's principal thoroughfares four inch underground pipes leading from fire hydrants to sewers, so that the latter may be flushed without delay by simply turning a valve in a nearby box below the street level and thus avoid filling the streets and gutters with water which later freezes.

The expense of this last improvement, the Commissioner says, will be more than offset by the saving effected in fire hose and the avoidance of delay and danger in getting the flushers to work when the sweepers are discharging snow and ice into the sewers.

Commissioner MacStay explained that the cost of the suggested improvements and additional equipment would be between $15,000,000 and $20,000,000, which will include the necessary strengthening of the waterfront dumps where refuse is loaded into scows and which, with the exception of the one at the foot of East Nineteenth street, in the "model district," are incapable of withstanding the strain of heavy motor equipment.

"Do you expect to get the cooperation of the Board of Estimate in this programme?" the Commissioner was asked.

"I do," he replied. "When I said that the report I am about to make would startle the town, I referred to the utter lack on the part of previous administrations to build against the future. I believe this administration will not repeat the mistakes of the past. It seems to me inconceivable that this department with even the equipment it has should be without a place to house it. The only housing facilities we have are our stables and in them we have only room for our horses. There is no covered storage provided for automatic sweepers, flushers and the like, and when not in use we are compelled to leave them out in the open. It is only through the courtesy of Commissioner Grover Whalen of the Department of Plant and Structures that we are able temporarily to park our motor equipment under the Queensborough Bridge, and that is inconvenient and distant from the locality where it is needed most."

Apart from the disadvantages due to the shortage of physical equipment, Commissioner MacStay points out that the labor situation reacted seriously to the disadvantage of himself and the citizens generally during the season just past. In the winter of 1914-15, he said, the department had no difficulty in recruiting 42,000 men, who worked in eight hour shifts during emergencies with 14,000 men on the job. This season, after systematic recruiting by the police during the summer and the cooperation of motion picture theatre managers who flashed notices calling attention to where temporary employment could be obtained, the total army of emergency snow shovellers organized from the three boroughs of Manhattan, Brooklyn and The Bronx numbered less than 5,000.

Police to Be Rewarded.

"And that reminds me," added the Commissioner, "I wish to acknowledge to the fullest extent on behalf of the Mayor as well as myself the appreciation of the splendid services performed this season by the men of the Police and Fire departments."

It is appropriate here to refer to the following special order recently issued by Police Commissioner Enright. It reads:

"Members of the force who volunteered for duty removing snow from the streets during the recent storm will be allowed one half day additional vacation for each day of service removing snow, provided, however, that the total vacation shall not exceed twenty days."

"This department would appreciate it," Commissioner MacStay said in conclusion, "if THE SUN AND NEW YORK HERALD would direct attention to the necessity for immediate action by the city authorities upon the proposals and improvements suggested. We cannot wage a successful fight with insufficient and antiquated equipment or when we are dependent upon outside facilities. A delay may mean repetition next year of past experiences with even worse results, and we cannot wait till then to get our equipment. Delivery of new trucks of the type required will take at least six months, so the matter is one that calls urgently for consideration by the city authorities."

Commissioner MacStay's outline of New York city's predicament caused THE SUN AND NEW YORK HERALD to seek an expression from the city of Newark officials that would explain just why that municipality's Street Cleaning Department was able to function nearly 100 per cent. efficient during the corresponding period Mr. MacStay was discussing. It may be expedient for those in whose hands the solution of New York's problem lies to observe the statement of James W. Costello, Engineering Supervisor of the Newark department. It follows:

"Preparedness is the first principle of snow removal. The organization, equipment and force must be in readiness to move at a moment's notice. At the time of a crisis, as the storm of February 4, quick and energetic action is imperative and this can only be realized by planning in summer to receive the storm in winter.

"After a heavy fall of snow the actual removal of it is of secondary importance. The immediate need is to plough and open passages for vehicles so that traffic can move with as little interruption as possible. If streets are not made passable immediately following a heavy fall of snow it is often impossible to do so twenty-four hours later. For instance, in the storm of February 4 considerable rain and sleet fell, causing from five to eight inches of ice to form under the heavy blanket of snow. Then to attempt to remove this ice would be like entering a stone quarry—an almost endless job at tremendous cost.

"When three inches of snow had fallen the Weather Bureau predicted that the storm would continue throughout the day and night. The motor flushers, which are used during the summer for street flushing and which had been equipped with plough blades, were ordered out at 6 P. M., February 4, and kept at work until February 5 at 10 P. M. On the morning of February 5, after the streets had been made passable by ploughing and piling the intersections, we began removing the snow.

"To my knowledge, up to the present time no machine has been invented and developed that will remove and load snow, so we were dependent entirely on man labor. The prices offered by the railroads during the storm for snow removal work ranged from $1 to $1.25 an hour, and to get men it was necessary to bid for them. We were successful, however, in obtaining labor for 70 or 80 cents an hour, because many of the men preferred to stay in the city rather than go on the railroad and be subjected to more severe conditions."

Despite Mr. Costello's assertion that he knows of no machine yet perfected that will remove and load snow, Commissioner MacStay is enthusiastic over the Friedman machine, which, he says, demonstrated its worth on the upper West Side within the last few weeks. The machine is driven by a 150 horsepower motor and has a speed of between two and seven miles an hour, according to the depth of snow through which it must travel. It is claimed for it that it will clear a path of 9 feet 6 inches by depositing the snow on one side in a ridge or in piles of ten cubic yards each and progress through an eight inch fall at a sustained speed of seven miles an hour.

The speed varies according to the depth of the snow, and by a sort of endless chain conveyor the machine may be made to load a truck, flat car or similar vehicle travelling parallel at the rate of fifty cubic yards of fresh snow a minute. With frozen snow or ice this capacity is reduced to from ten to twenty-five cubic yards. It will collect snow and ice from piles or low heaps, and may also be made to travel over an ice bottom and collect a surface deposit of four feet of snow or refuse, leaving the way open to attack the ice with picks, after which the machine can return and collect the broken ice. Commissioner MacStay believes the machine to be the best mechanical device so far invented for snow removal work.

Plants Reduce Uniforms Cost.

New machinery and new snow removal methods are not the only features Commissioner MacStay has in mind for the Department of Street Cleaning. He will shortly ask the city authorities for permission to put into effect a plan he has had in mind for some time to relieve the sweepers and drivers of the department of the consequences of the familiar phrase "high cost of living."

The Commissioner's plan, if he is able to put it into effect, will mean a saving of approximately $2.50 on every uniform that sweepers or drivers have to buy and also relieve them of the necessity of laundering them in their homes, with the consequent danger of spreading disease among members of their families.

At present a sweeper or driver's uniform costs him $6.50. Commissioner MacStay has been making experiments and finds that an identical product can be made for $4. It is his plan to have the city buy the material and have the inmates of the city's reformatory institution on Blackwell's Island make and repair the uniforms of the street cleaners and to supply them to the individual wearers at cost.

In addition, a plan is under consideration to have the soiled uniforms laundered by the Department of Charities. Mr. MacStay has not perfected his plans in this direction entirely, but hopes soon to have an announcement to make of interest to New York's army of "White Wings."

ADRIFT IN A SEA OF SNOW AND ICE IN NEW YORK CITY

USING LIVE STEAM TO CLEAR SNOW FROM DRYDOCK

MAIN RELIANCE, AFTER ALL, FOR SNOW REMOVAL

Study of Motion Speeds Up Work

THE man who proposed to grow strawberries upon raised beds so that he could pick them without stooping was apparently before his time, as this course will certainly be advocated when the latest industrial science known as "motion study" is applied to fruit growing.

One might suppose that the "art" of bricklaying, having been practised for thousands of years, would now have become so perfect that it would be impossible to teach the modern bricklayer how to do his work more quickly; yet the originator of "motion study," Gilbreth, has been able to do this, and with such effect as to treble the number of bricks laid by the most skilful workman without increasing his bodily efforts.

It sounds incredible that the simple operation of bricklaying, spreading the mortar, placing the bricks in position and cutting off the waste mortar should be capable of any substantial reduction, but the quicker way of doing it seems simple enough, now that it has been invented. The main thing is to place the bricks and mortar in such positions that the bricklayer can reach them without stooping or making a step in either direction. Then the bricks must be piled ready in a certain way so that the workman can take them up in one hand and place each in position without altering his hold. At the same time as he reaches for a brick the bricklayer picks up mortar on his trowel with the other hand, and if the spreading is skilfully done the brick goes straight into position without a pause while the trowel is cutting off the waste mortar.

It must be remembered that this remarkable speeding up of the work has been obtained with men who are accustomed to working "by the piece," and who would, therefore, have already done their best to economize in labor and time so as to increase their wages. This would appear to indicate that the workmen themselves are not capable of scientific "motion study," a fact which has been abundantly proved by the originator of this science.